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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/660,092	09/12/2000	Faroog Ullah Khan	3-53	7324

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EXAMINER	
PHAN, TRI H	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 07/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/660,092	KHAN ET AL.	
	Examiner	Art Unit	
	Tri H. Phan	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7 and 13-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 13-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment/Arguments

1. In view of the Appeal Brief filed on April 25th, 2006, the previous final Office action has been withdrawn. Claims 8-12 are now canceled. Claims 1-7 and 13-19 are now pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-7 and 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Sipola, Jussi** (WO 00/45543; hereinafter refer as '**Sipola**').

- In regard to claims 1 and 13, **Sipola** discloses, *a method for receiving information in a communication system* (for example see figure 1,3; Abstract), *which comprises deciding which of a plurality of confirmation messages* ('ACK' or 'NACK'; for example see figure 3, steps S13-15, S21) *to transmit based on an information status flag indication contained in the received information* ('information T'; for example see Abstract; wherein the flag information T, e.g. "*information status flag*", indicates whether the status of the respective block is a new/transmitted for the first time or a retransmitted one as disclosed in page 9, lines 24-30; page

14, lines 15-19) *and a decoding operation performed on the received information to recover from misinterpretation of a previous confirmation message transmission* (for example see figure 3, steps 12, 19; page 13, lines 21-31). **Sipola** does disclose the receiver checks for errors (S19 in figure 3) to forward the NACK/ACK, when decoding with/without errors; but fails to explicitly disclose about checking the information T in the header of the received data. However, it is obvious that the information T has to be checked in order to recognize the transmission block is a retransmitted one or not (for example see page 9, lines 24-30), so the receiver can combine the original and retransmitted block for decoding when the information T = 1; or forwards the NACK to the transmitter, e.g. request for retransmission, if decoding is failed, as disclosed in figure 3, steps S19-22; page 13, lines 21-31; e.g. "*deciding which of a plurality of confirmation messages to transmit based on an information status flag indication ... and a decoding operation ... to recover from misinterpretation of a previous confirmation message transmission*".

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to include the step of checking information T in combination with the decoding step in the check for errors as taught by **Sipola**, with the motivation being to reduce the overhead of transmitted data, thus increasing user data throughput in the incremental redundancy communication system as disclosed in page 5, lines 3-31.

- Regarding claims 2-3 and 14-15, **Sipola** further discloses, *wherein the step of deciding which of the plurality of confirmation messages to transmit comprises waiting for NEW information* (for example see steps S12-15 in figure 3; where the receiver receives and check

for failure the received data block for the first time transmission with T=0) *or after a positive confirmation message was transmitted* (for example see step S14 in figure 3).

- In regard to claims 4 and 16, **Sipola** further discloses, *transmitting a positive confirmation message after receiving NEW information while waiting for either NEW or CONTINUE information, decoding said received NEW information successfully* (for example see steps S12-14 in figure 3); but fails to explicitly disclose about "*discarding any previously received information*". However, it is obvious that, after the received block can be decoded without errors, the previously received block can be discarded in step 22 of figure 3, in order to free up buffer for receiving other new transmitted data.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to include the step of "*discarding any previously received information*" in the end step S22 as taught by **Sipola**, with the motivation being to free up buffer for receiving other new transmitted data.

- Regarding claims 5 and 17, **Sipola** further discloses, *where the step of deciding which of the plurality of confirmation messages to transmit further comprises transmitting a positive confirmation message if the received information is NEW information and the decoding operation was successful* (For example see step S14 in figure 3; wherein the receiver receives and check for failure the received data block for the first time transmission with T=0 as disclosed in steps S12-S13 of figure 3).

- In regard to claims 6 and 18, **Sipola** further discloses, *where the step of deciding which of the plurality of confirmation messages to transmit further comprises transmitting a negative confirmation message if the received information is NEW information and the decoding operation was unsuccessful* (for example see step S15 in figure 3; wherein the receiver receives and check for failure the received data block for the first time transmission with T=0 as disclosed in steps S12-S13 of figure 3).

- Regarding claims 7 and 19, **Sipola** further discloses, *the method further comprising the steps of waiting for CONTINUE information after the negative confirmation message was transmitted; combining received CONTINUE information with previously received information; and performing a decoding operation on the combined information* (for example see steps S17-S21; page 13, lines 4-31; wherein the receiver, after forwarding the NACK, receives and decodes the combined original and retransmitted blocks).

Response to Amendment/Arguments

4. Applicant's arguments filed on April 25th, 2006 with respect to claims 1-7 and 13-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wellig, Armin (U.S.6,505,034), **Kallel et al.** (An adaptive incremental redundancy selective-repeat ARQ scheme for finite buffer receivers; 7-11 April 1991; INFOCOM '91. Proceedings. Tenth Annual Joint Conference of the IEEE Computer and Communications Societies; Networking in the 90s, IEEE; vol.2; Page(s):791 – 796), **Qiu et al.** (Performance enhancement of incremental redundancy in wireless data networks by measurement-based transmission control; Vehicular Technology Conference, 1999. VTC 1999 - Fall. IEEE VTS 50th; Volume 1, 19-22 Sept. 1999; Page(s): 517 – 522), **Qiu et al.** (Performance comparison of link adaptation and incremental redundancy in wireless data networks; Wireless Communications and Networking Conference, 1999. WCNC. 1999 IEEE; vol.2, 21-24 Sept. 1999; Page(s):771 - 775) and **Pursley et al.** (Incremental-redundancy transmission for meteor-burst communications; Communications, IEEE Transactions on; Volume 39, Issue 5, May 1991; Page(s): 689 - 702) are all cited to show devices and methods for improving the incremental redundancy of the transmission in the telecommunication architectures, which are considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on (571) 272-3179.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(571) 273-8300

Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tri H. Phan
June 26, 2006

CHI PHAM
SUPERVISORY PATENT EXAMINER 6/28/06